



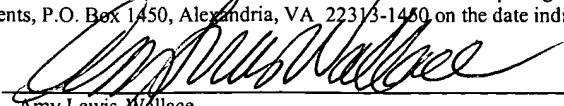
2542

#9
S.I.
08-26-03

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August 6, 2003
Date


Amy Lewis Wallace

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| | | |
|------------------------------------|---|-------------------------------|
| In re Patent Application of: |) | |
| Judkins et al. |) | Confirmation No. 7190 |
| |) | |
| Serial No.: 09/513,784 |) | Examiner: William Dean, Jr. |
| |) | |
| Filed: February 25, 2000 |) | Group Art Unit: 3642 |
| |) | |
| For: INTEGRATED ACD AND IVR |) | Attorney Docket No. 081544.05 |
| SCRIPTING FOR CALL CENTER |) | |
| TRACKING OF CALLS |) | |

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Technology Center 2600

TRANSMITTAL SHEET

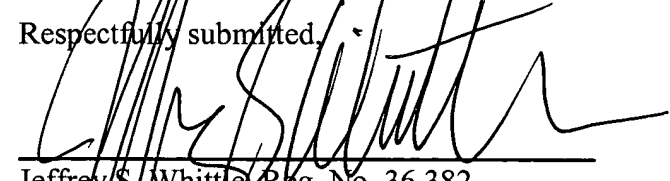
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Dear Sir:

Transmitted herewith for filing are the following documents:

- Transmittal of Formal Drawings;
- Formal Drawings – Forty-Eight (48) sheets;
- Transmittal Sheet in duplicate; and
- Postcard, which we would appreciate your date stamping and returning to us upon receipt.

I hereby authorize the Commissioner to charge any additional fees, which may be required, or credit any overpayment to Bracewell & Patterson, L.L.P.'s Deposit Account No. 50-0259 (Attorney Docket 081544.05).

Respectfully submitted,

Jeffrey S. Whittle Reg. No. 36,382

Date: August 6, 2003

BRACEWELL & PATTERSON, L.L.P.
P.O. Box 61389
Houston, Texas 77208-1389
(713) 221-1185
(713) 221-2141 (fax)

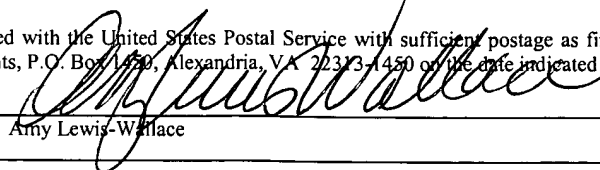


CERTIFICATE OF MAILING 37 C.F.R. 1.8(a)

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August 6, 2003

Date


Amy Lewis-Wallace

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In re Patent Application of:

Judkins et al.

Serial No.: 09/513,784

Filed: February 25, 2000

For: **INTEGRATED ACD AND IVR
SCRIPTING FOR CALL CENTER
TRACKING OF CALLS**

)
) Confirmation No. 7190
)

) Examiner: William Dean, Jr.
)

) Group Art Unit: 3642
)

) Attorney Docket No. 081544.05
)
)

TRANSMITTAL OF FORMAL DRAWINGS

RECEIVED

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Technology Center 2600

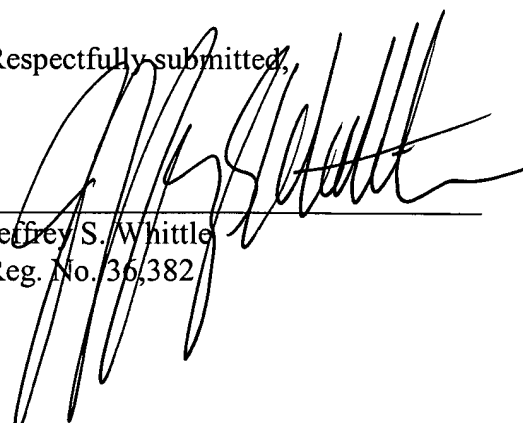
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Applicant submits herewith Formal Drawings of FIGS. 1-72 (forty-eight sheets) for the above-identified patent application.

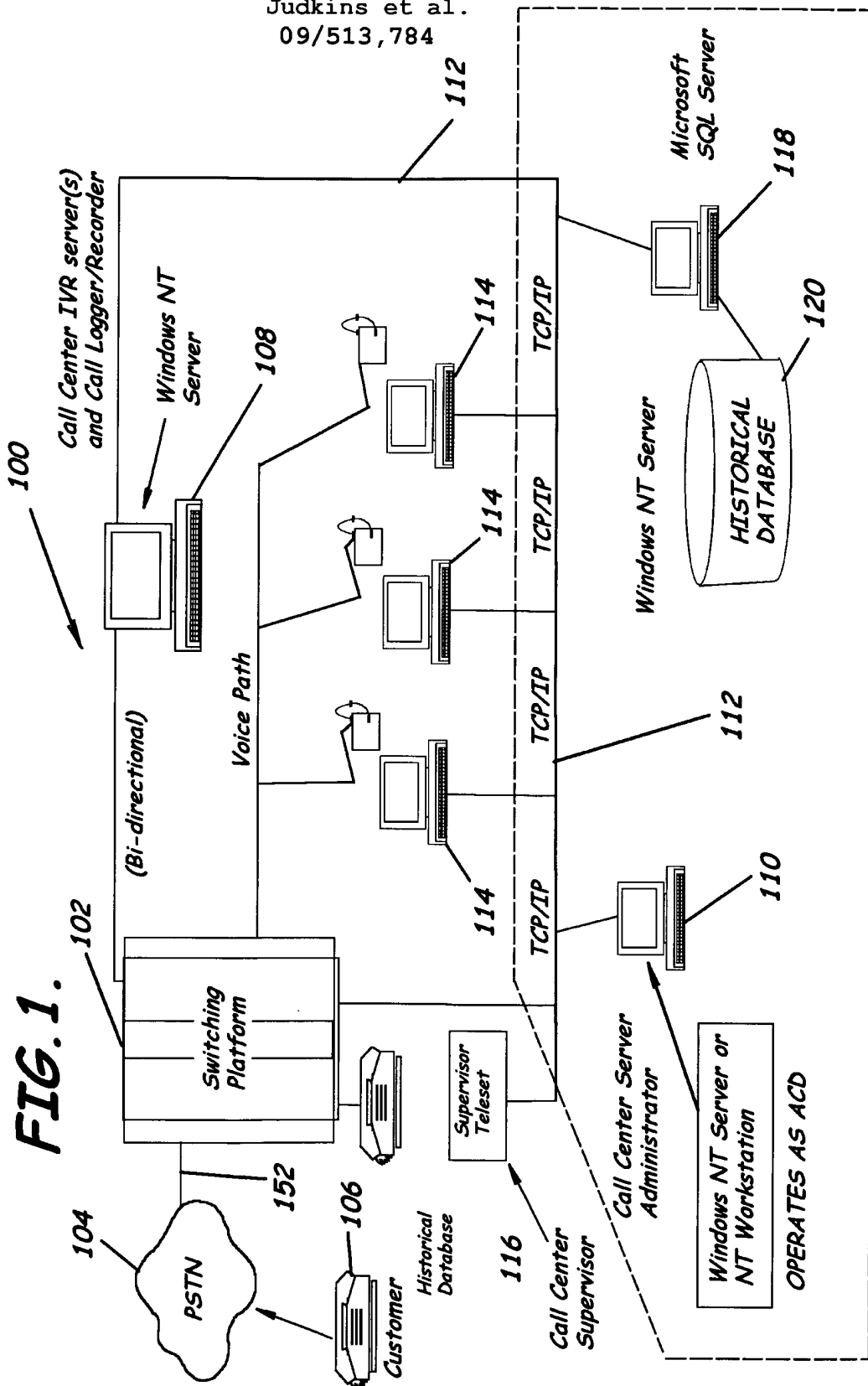
Respectfully submitted,

Date: August 6, 2003



Jeffrey S. Whittle
Reg. No. 36,382

BRACEWELL & PATTERSON, L.L.P.
P.O. Box 61389
Houston, Texas 77208-1389
Telephone: (713) 221-1185
Facsimile: (713) 221-2141





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CALL PROCESSING OVERVIEW

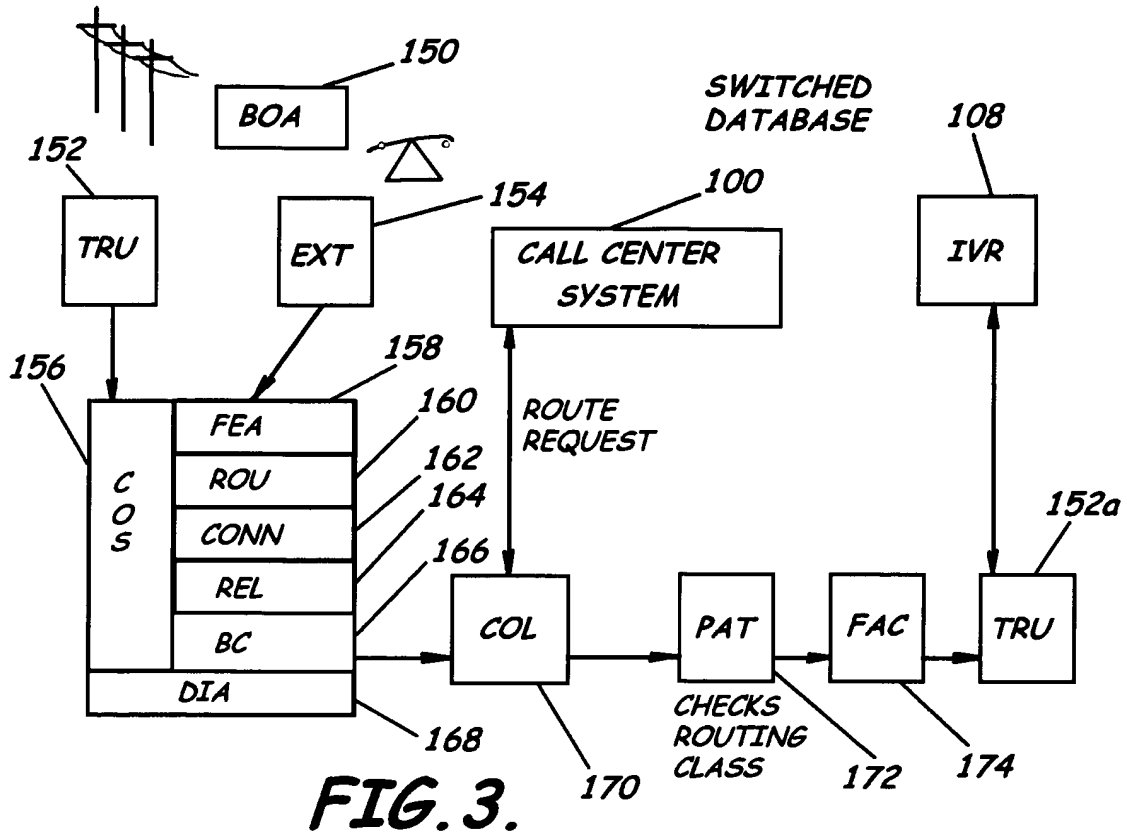
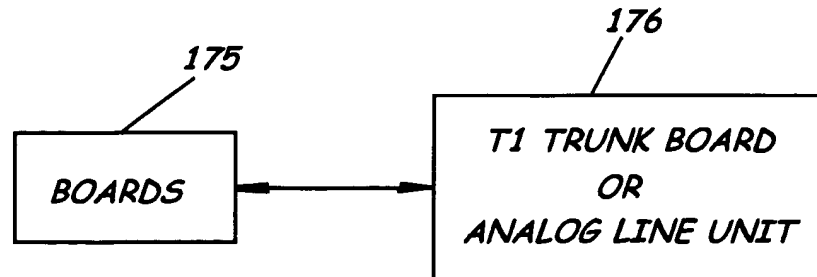


FIG. 4.

CALL PROCESSING

DEFINES WHICH BOARDS GO INTO WHICH
SHELVES AND SLOTS.





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ROUTE REQUEST CONFIGURATION

A ...? System
HIL ...? Route
HILROUTE ...? ADD

Route Request Name ROUTE-REQUEST-1

Profile Number 39

Logical Device Name LINKONE

Failure Destination STA

FIG. 5.

SYSTEM DEVICE
CONFIGURATION

A ...? System
SYSEDT ...? Device
SYSDEV ...? List

System Device L1

LINK type CALL-LINK

Link media Type LAN

HIL Link Failure Queue Timer 5 seconds

FIG. 6.



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**SYSTEM LOGICAL DEVICE
CONFIGURATION**

| | |
|----------------------------------|------------------|
| <i>A ... ? System</i> | |
| <i>SYSEDIT ... ? Logical</i> | |
| <i>SYSLOG ... ? List</i> | |
| <i>Logical Device Name</i> | <i>LINKONE</i> |
| <i>Logical Device Type</i> | <i>CALL-LINK</i> |
| <i>System Device</i> | <i>L1</i> |

FIG. 7.

HIL MESSAGE FORMAT (SERIAL)

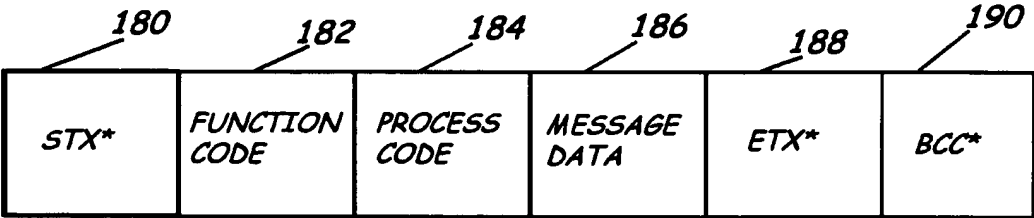


FIG. 8.



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**OpenLAN HIL Message
Format**

| Field Name | Size | Description |
|---------------------------------|----------|--|
| Message Count | 16 bits | Number of HIL Messages in OpenLAN message. |
| Message Length | 16 bits | Length of the following HIL message. |
| Function Code | 2 bytes | Identifies HIL message. |
| Process Code | 1 byte | Identifies message subfunction. |
| Message Data | Variable | Info required by message. |
| Fill (message of odd size only) | 1 byte | Used only to change message of odd to even byte. |

FIG. 9.

HIL Signaled Circuits

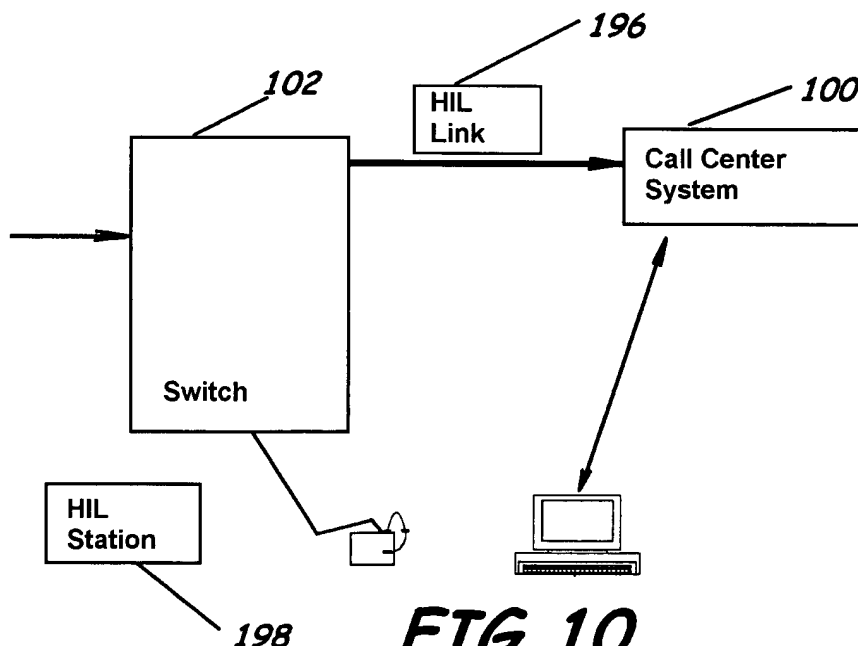


FIG. 10.



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HIL Stations

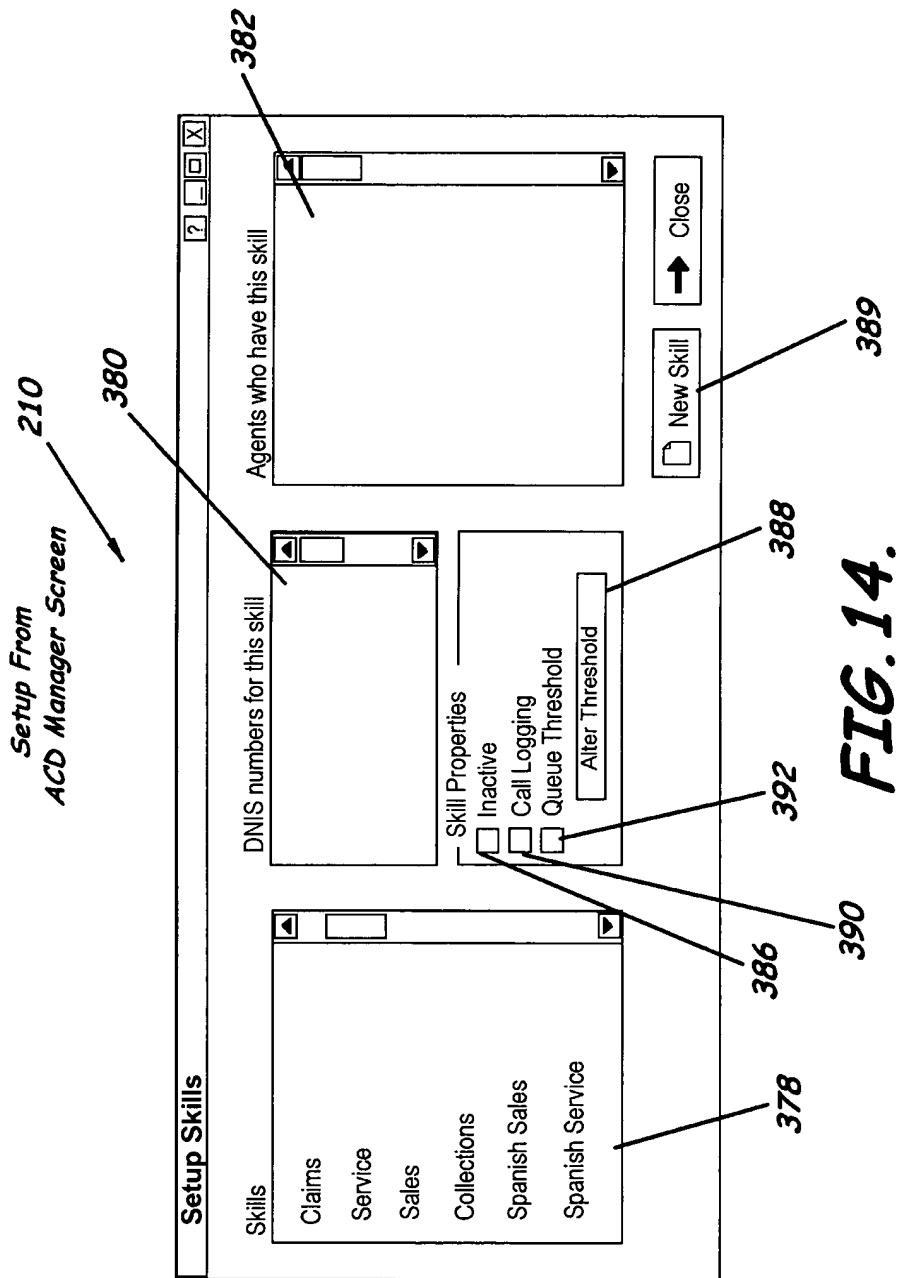
| | |
|---------------------|----------|
| Extension Number | 2020 |
| Extension Type | HILSTA |
| Logical Device Name | LinkOne |
| Facility Number | 15 |
| Ringback Type | Silent |
| Circuit Location | 01-14-03 |
| Class of Service | 2 Dial |
| Signaling Type | DP* |

FIG.11.

| | |
|---------------------|----------------------------|
| Facility number | 15 |
| Trunk Group number | None |
| Outgoing COS number | 3 |
| Outpulse command | PRESENT 39 WPROGRESS 60 |

FIG.12.

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ACD Server Administrator

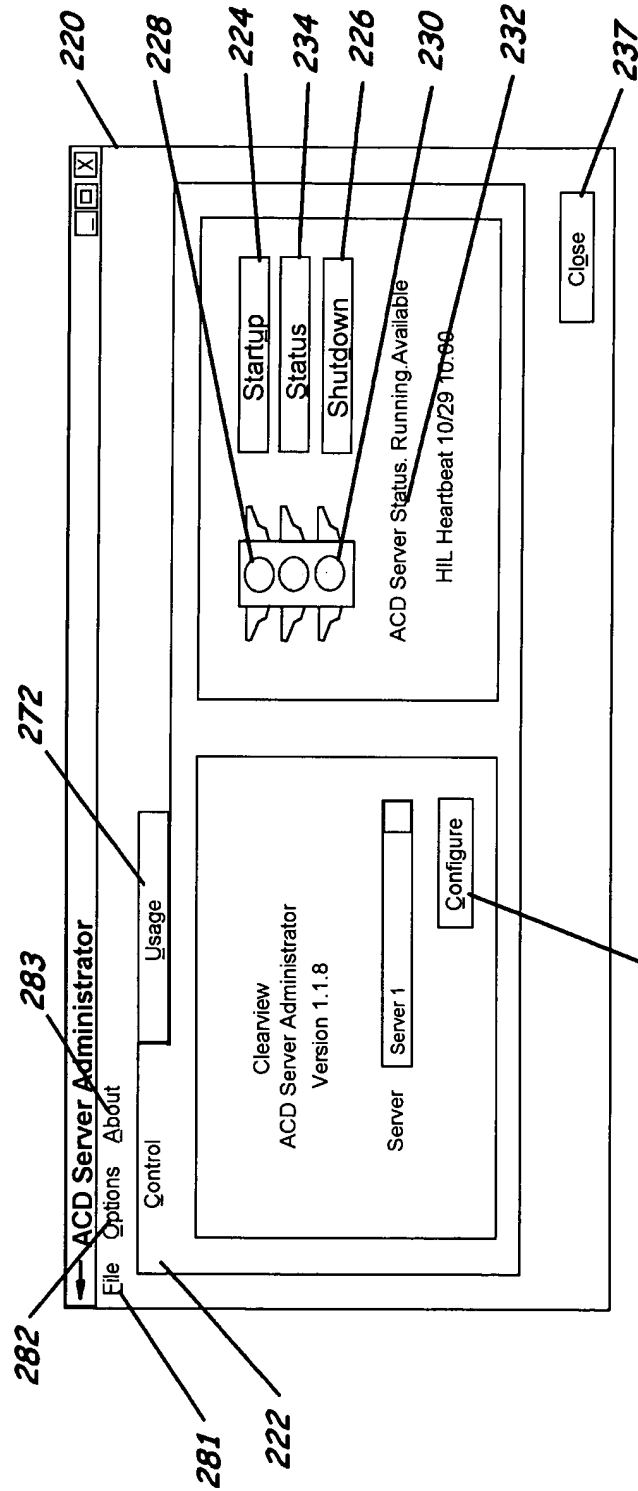


FIG. 15.

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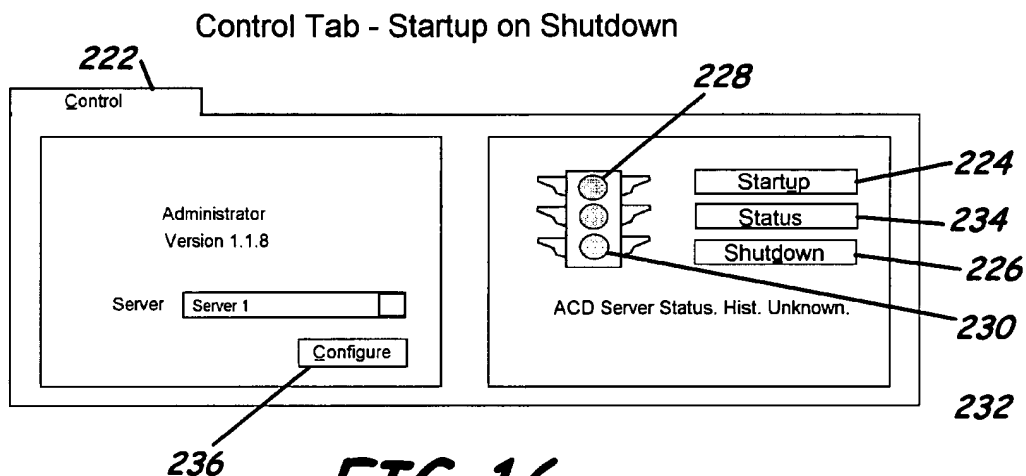


FIG. 16.

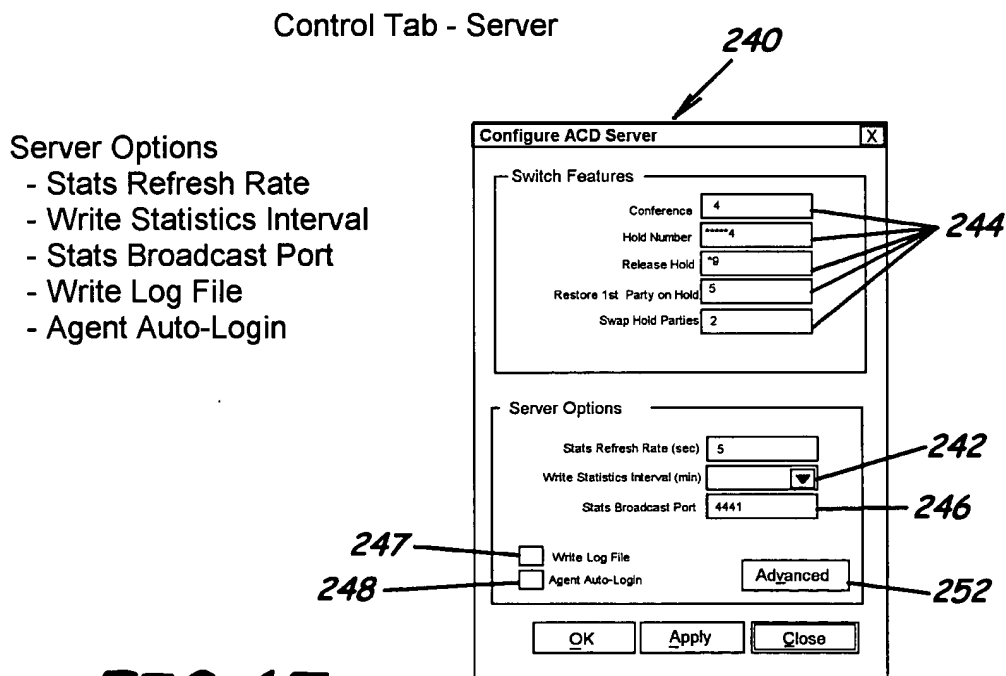


FIG. 17.

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Advanced Settings
HIL Interface Type

250

254

256

258

270

260

250

264

266

262

Database Settings

ACD Server

Database Server Alias

User Name

Password

Redundancy

☐ Off

☐ Primary

☐ Backup

Backup Host Address

127.0.0.1

Redundant Port

4440

OK

Apply

Close

Install License

262a 262b

FIG. 18.



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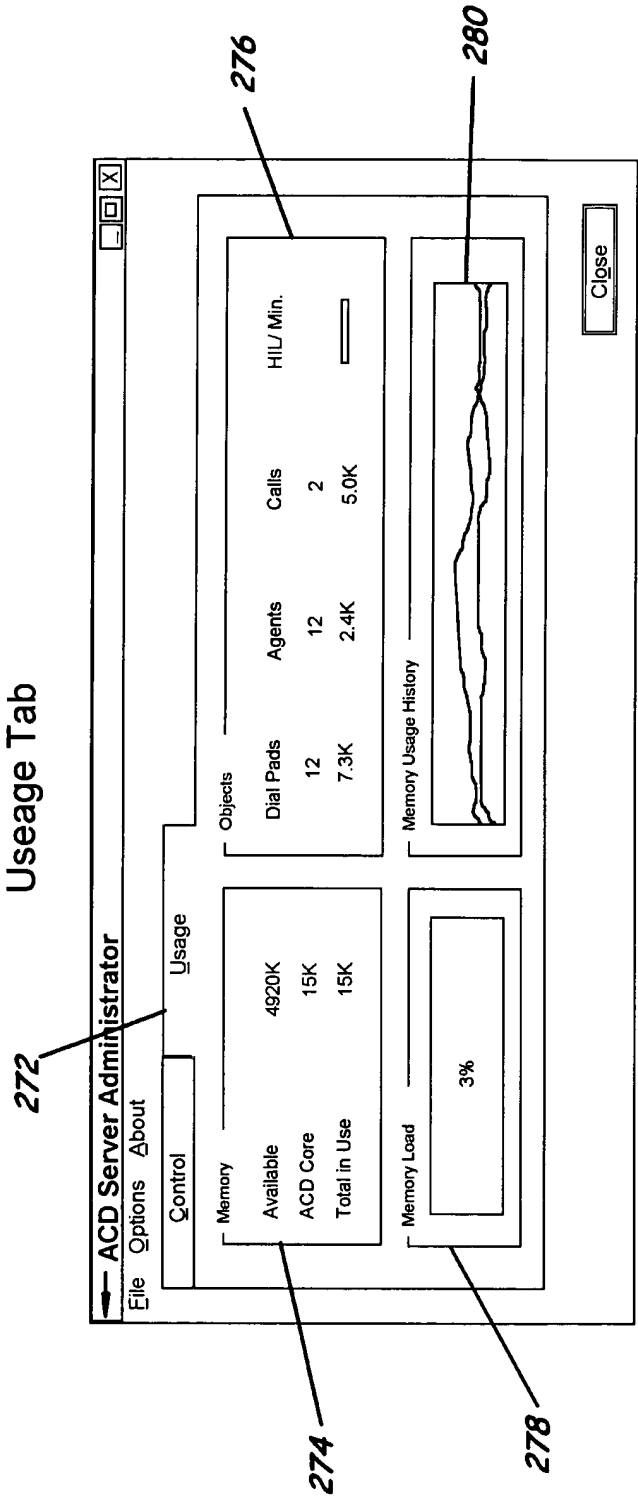


FIG. 19.

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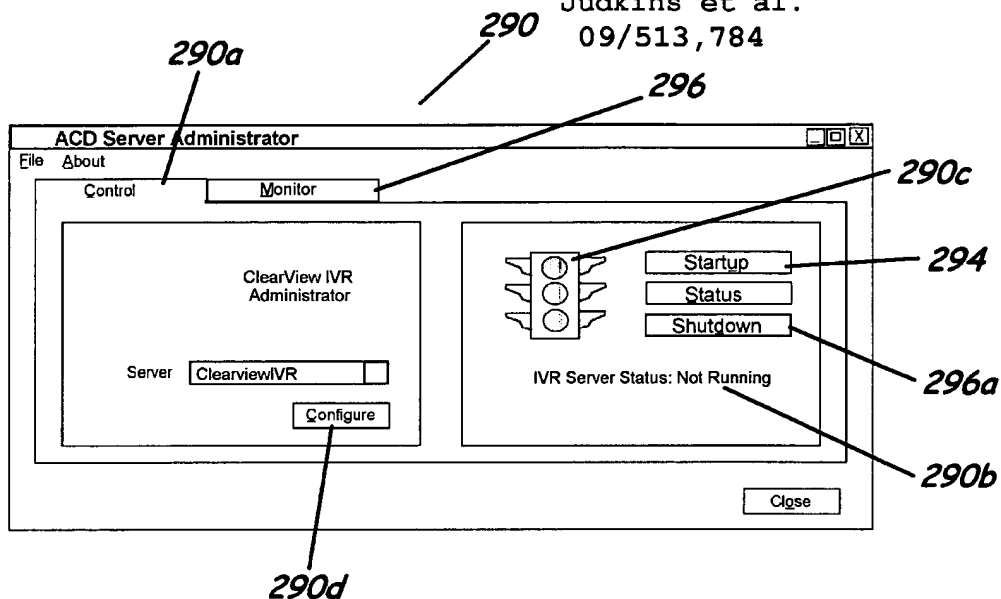


FIG. 19A.

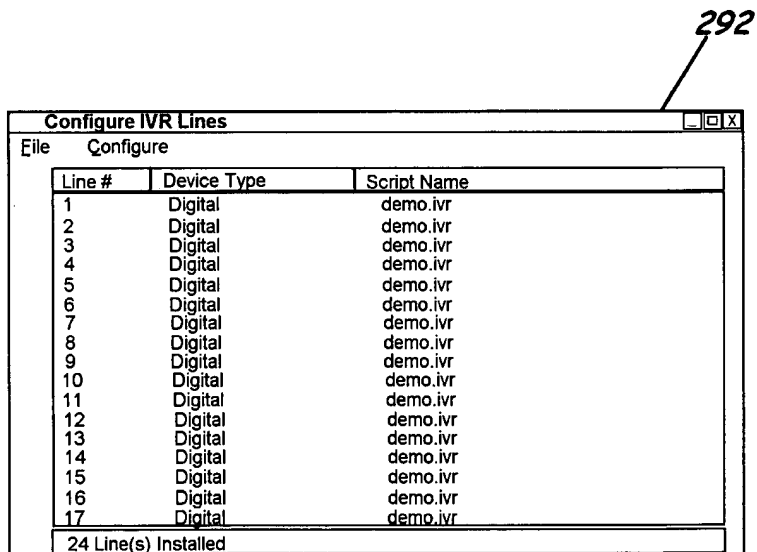


FIG. 19B.



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A screenshot of a software dialog box titled "Select Number of Lines". The dialog has a close button (X) in the top right corner. Inside, it says "Enter the number of lines available on this server:" followed by a text input field containing the number "1". At the bottom, there are two buttons: "OK" and "Cancel".

FIG. 19C.

A screenshot of a software dialog box titled "Configure Advanced Properties". The dialog has a close button (X) in the top right corner. It contains a "Digital Parameters" section with two checkboxes: "Wink Before Pickup" (checked) and "Wink After Pickup" (unchecked). Below these is a "Wink Duration (ms):" label followed by a text input field containing "500". To the left of a list box is the label "Transfer Sequence:". The list box contains the following items: "Wait 125 ms", "Dial Flash Hook", "Wait 250 ms", "Dial Number", and "Wait 125 ms". Below the list box are three buttons: "Insert", "Add", and "Delete". To the right of the list box are three buttons: "OK", "Apply", and "Close".

FIG. 19D.



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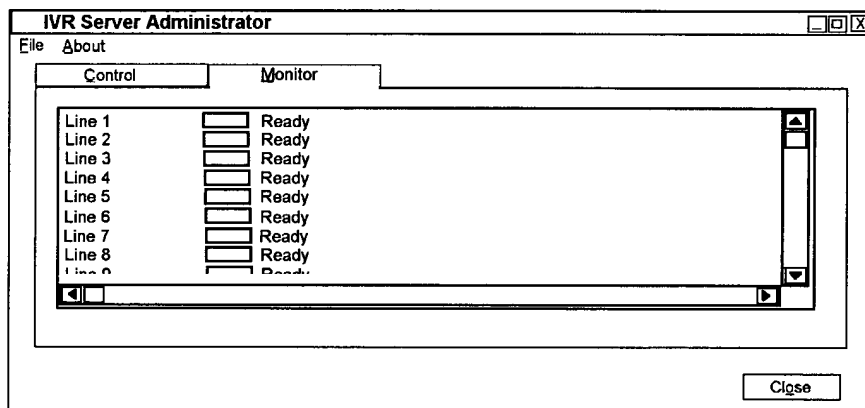


FIG. 19E.

Manager Interface

- Interface between call center Database Administrator and ClearView resource database and scripts.
- Database Tables:
 - Station Management
 - Agent Teams
 - Call Center Hours of Operation
 - Agent Skills
 - Call Disposition Tracking
 - Agent Extensions
 - DNIS Configuration

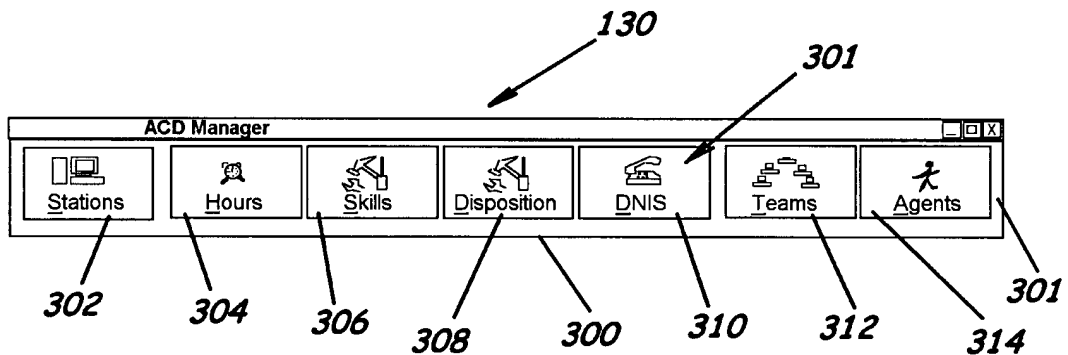


FIG. 20.



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Station Management

- Creating a New Station
- Modify an Existing Station

Setup Stations

Choose a station below to modify or select "Create a New Station"

| Node Name | Circuit | Ext. | Status |
|-----------|---------|------|--------|
| Agent 1 | 011705 | 7701 | NEW |
| Agent 2 | 011706 | 7702 | NEW |
| Agent 3 | 011707 | 7703 | NEW |
| Agent 4 | 011708 | 7704 | NEW |
| Agent 5 | 011709 | 7705 | NEW |
| Agent 6 | 011710 | 7706 | NEW |
| Agent 7 | 011711 | 7707 | NEW |
| Agent 8 | 011712 | 7708 | NEW |
| DAVID2 | 011707 | 7703 | NEW |

Circuit Number: 011705

Extension: 7701

☒ Save Station Changes

☐ Disable this Station

☐ Create a New Station

Close

Station Status: CURR = In use DISC = Not in use NEW = Modified but not in use yet.

Callout numbers: 320 (Circuit Number), 322 (Table), 324 (Ext. column), 326 (Extension), 327 (Save Station Changes), 328 (Disable this Station), 330 (Create a New Station), 331 (Close button).

FIG. 21.



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Call Center Hours of Operation

- o Setting Up Routing Schedules

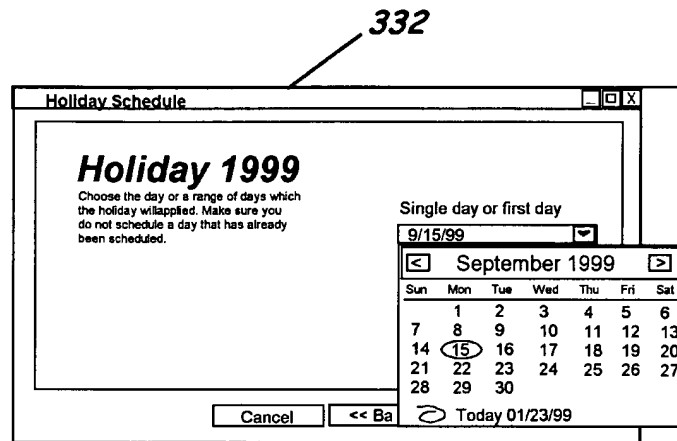


FIG. 22.



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- Days and Times of Operation

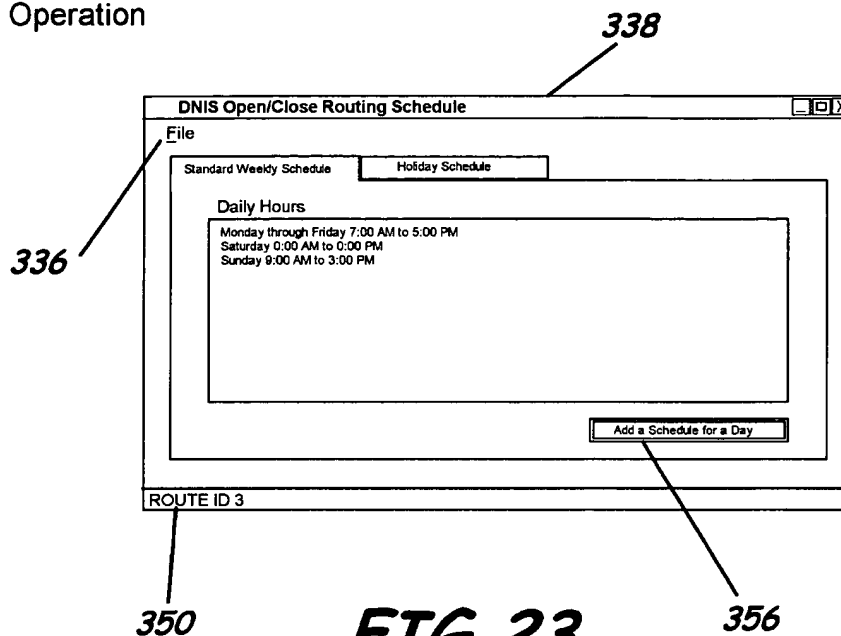


FIG. 23

- Opening and Saving Route Schedules

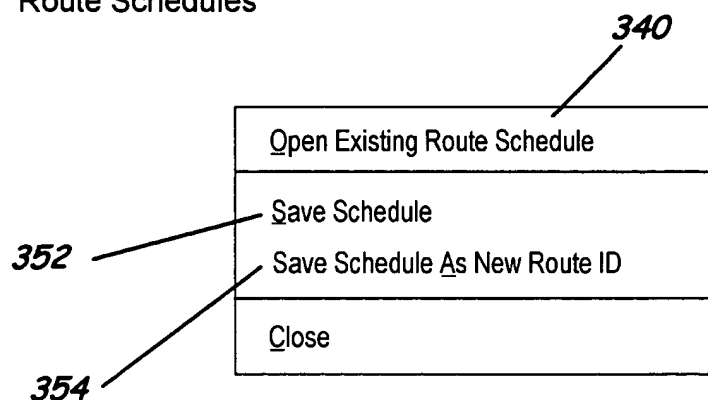


FIG. 24.



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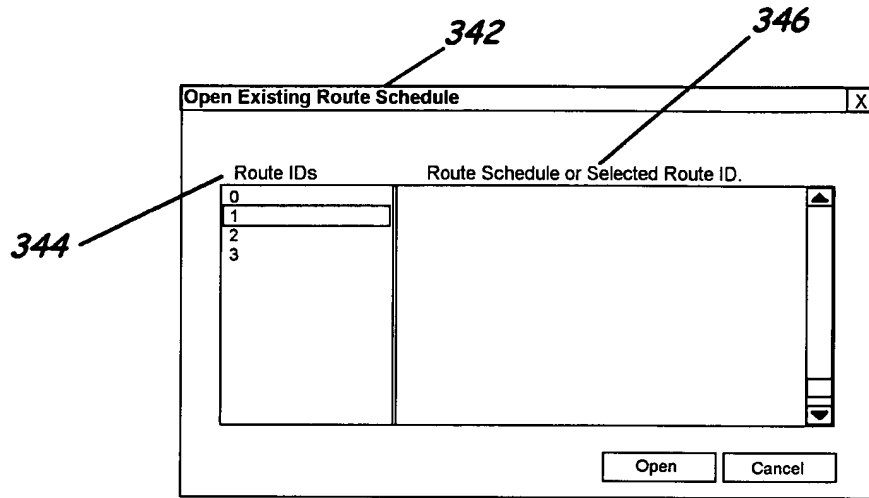


FIG. 25.

- Setting Up Standard Weekly Schedule

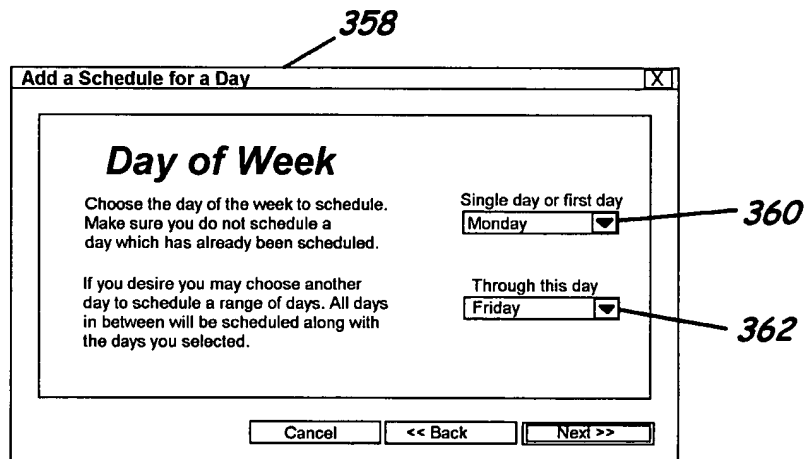


FIG. 26.



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- Open and Close Times

362

364

366

FIG. 27.

- Finishing Up

368

FIG. 28.



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- Setting Holiday Hours
- Adding a Holiday

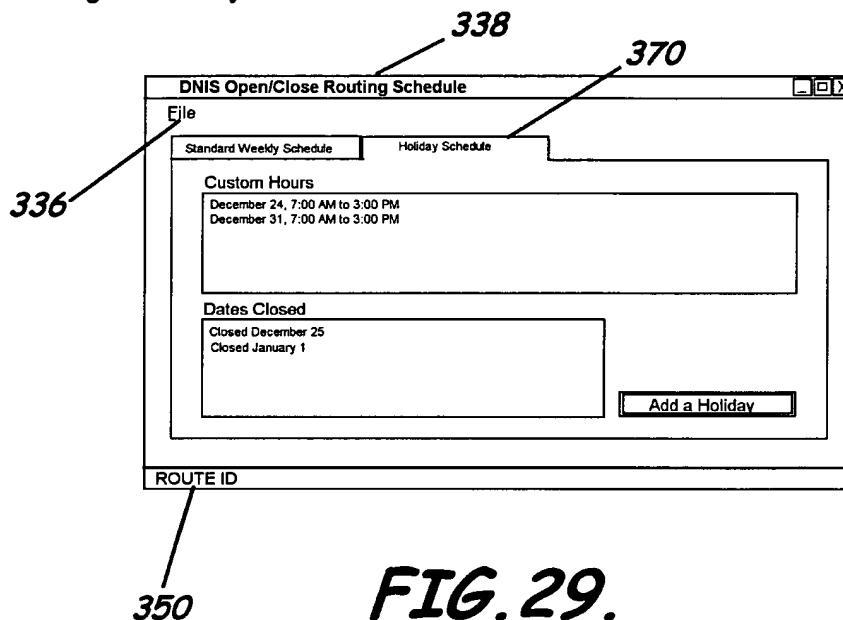


FIG. 29.

- Text Description
- Logical Expression

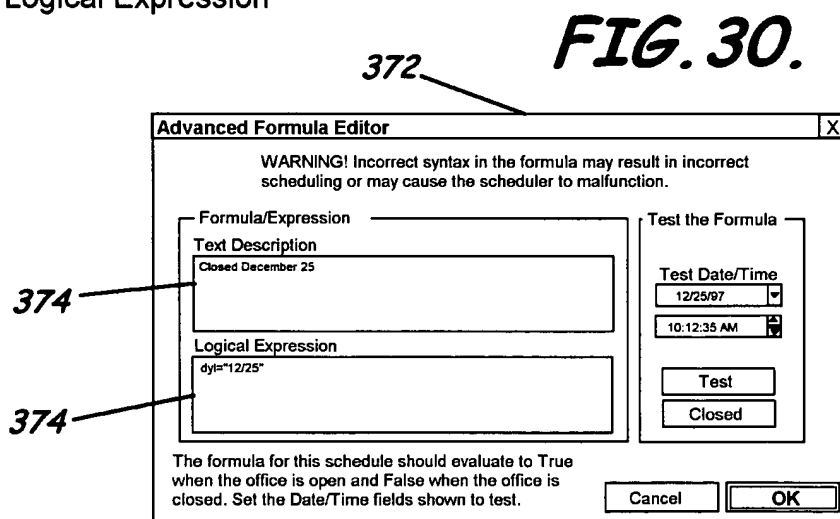
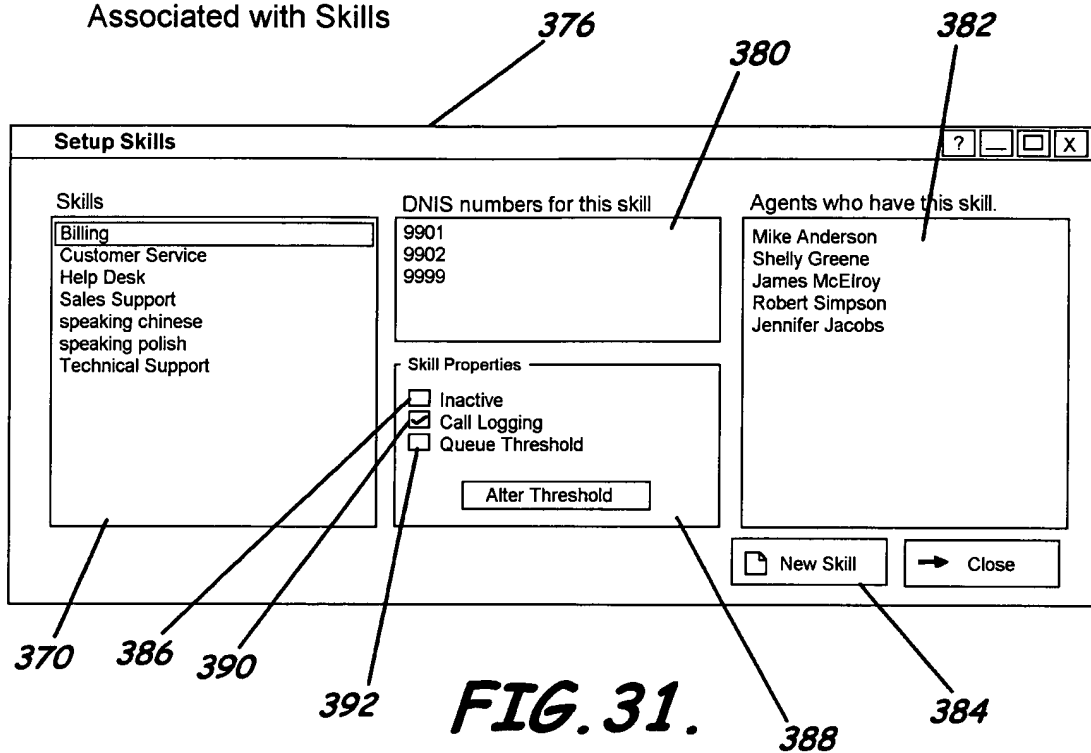


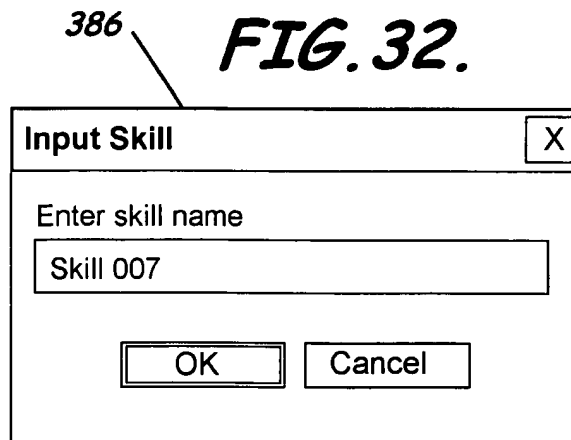
FIG. 30.



- Identifying Parameters Associated with Skills



- Adding New Skills





Call Disposition Tracking

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Setup Call Dispositions

Click on a Skill to Setup Dispositions. Skills shown have Call Logging Enabled.

Skills marked with a checkbox have been enabled for out bound

| Skill Name | DB DNIS | Dispositions |
|---|---------|-----------------|
| <input type="checkbox"/> Billing | 4 | Need Technician |
| <input type="checkbox"/> Customer Service | | User Error |
| <input checked="" type="checkbox"/> Help Desk | | Out of service |
| <input type="checkbox"/> Sales Support | | Wrong Number |
| <input type="checkbox"/> speaking polish | | New Disposition |
| <input type="checkbox"/> Technical Support | | |

396 New Disposition

398 Delete

400 Save Changes

Close

Note: Before any skills will operate with dispositions, call logging must be enabled. Click Skills in the tool box.

FIG. 33.

Creating a New DNIS

402

Setup DNIS

Choose a DNIS below to modify. Or select "Create a New DNIS"

| DNIS Number | Name | Skill | Status |
|-------------|----------------------|-------------------|--------|
| 1600 | Xfer | Billing | CURR |
| 2999 | xfer from IVR | Customer Service | CURR |
| 4 | Help Desk Outbôu... | Help Desk | CURR |
| 9017 | Customer Service... | speaking polish | CURR |
| 9018 | Billing 9018 | Billing | CURR |
| 9019 | HelpDesk | Help Desk | CURR |
| 9020 | Tech.Support | Technical Support | CURR |
| 9021 | Sales Suppt. | Sales Support | CURR |
| 9022 | ClearView Sales | Sales Support | CURR |
| 9023 | Seminar Registration | Sales Support | CURR |

DNIS Name
Seminar Registration

DNIS Skill
Sales Support

404 Create a New DNIS

408 Disable this DNIS

410 Setup Routing Features

Save DNIS Changes

Close

DNIS Status: CURR=In use. DISC=Not in use. NEW=Modified but not in use yet.

FIG. 34.



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405 — DNIS Name
Maim 800

406 — DNIS Skill
Company ▼

FIG. 35.

Setting Up Routing
Features

412 — Routing for dnis (0000)

414 — Step 1: Choose a routing profile that determines the open and close times for this DNIS.

Select Route ID 1 ▼

The following is the schedule in this selected route ID.

Closed September 20 through September 23
Monday through Friday 7:00 AM to 7:00 PM

416 — Step 2: Select a routing script.

Routing Script Name. Default In Queue ▼ EditScript 418

Step 3: Setup routing prioritization for the DNIS.

Initial Priority(0.0) 0.0 Acceleration Function Linear 424
Acceleration(1.0) 1.0 Maximum Priority (100.0) 100.0 426

420 — X Cancel 422 — ✓ Save

FIG. 36.



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730

Setup Teams

Teams

Test Team
SalesClass
Training
Upgrade team

Agents

Jennifer Jacobs
Monica Andrews
Michael Jones
Rebecca Simpson
Valerie Martinez
Jorge Delvalle

New Team

Delete Team

Close

432 **FIG. 37.** 434

◦ Adding New Agents

440 **FIG. 38.**

Setup Agents

Choose an Agent below to modify. Or select "Create a New Agent"

| FirstName | M | Last | Status | Team | Username | Login |
|-----------|---|----------|------------|------------|----------|-------|
| Stevens | | Jake | CURR | Training | acd2 | 1001 |
| Allen | | Joanne | CURR | SalesClass | agent10 | 1010 |
| O'Leary | | Patrick | CURR | Training | DAVEP | 1006 |
| Matheson | | Robert | CURR | Training | acd4 | 1003 |
| Samuals | | Bo | CURR | SalesClass | agent7 | 1007 |
| Dulaney | | Sean | CURR | SalesClass | agent9 | 1009 |
| Corbin | | Daniel | CURR | SalesClass | agent8 | 1008 |
| James | | Susan | CURR | Training | acd1 | 1000 |
| Akerman | | Linda | CURR | SalesClass | agent11 | 1011 |
| Churchill | | Caroline | CURR | Training | acd3 | 1005 |
| FirstName | | CURR | SalesClass | | | |

First M Last

FirstName

Team Username

SalesClass

Save Agent Changes

Disable this Agent

Create a New Agent

Setup Agent Skills

Close

Hide Disabled Agents

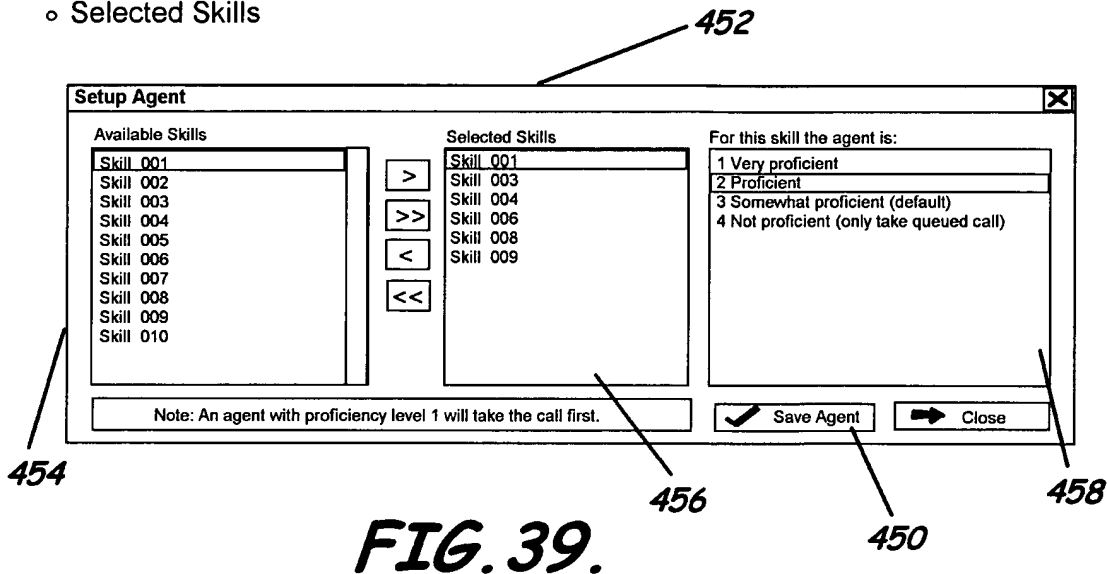
Agent Status: CURR = In use. DISC = Not in use. NEW = Modified but not in use yet.

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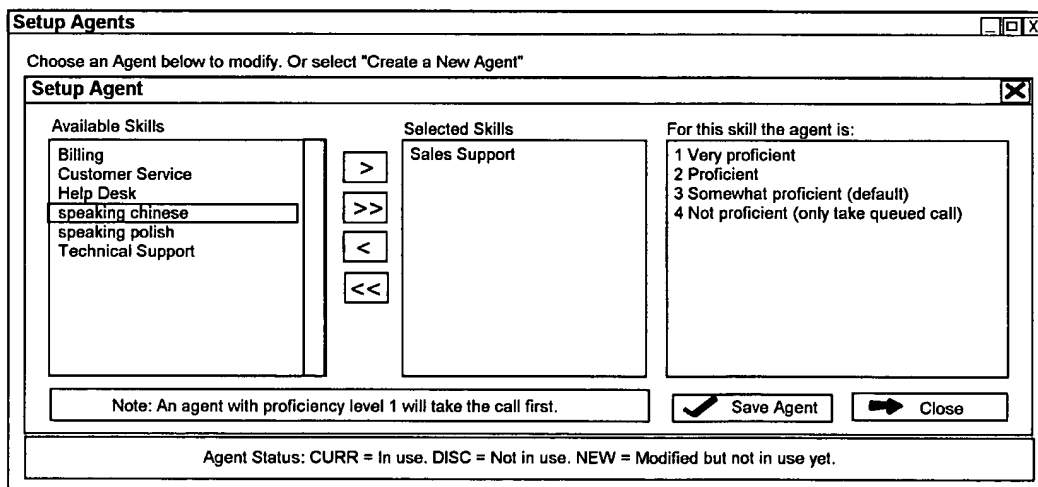
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- Setting Up Agent Skills
- Available Skills
- Selected Skills



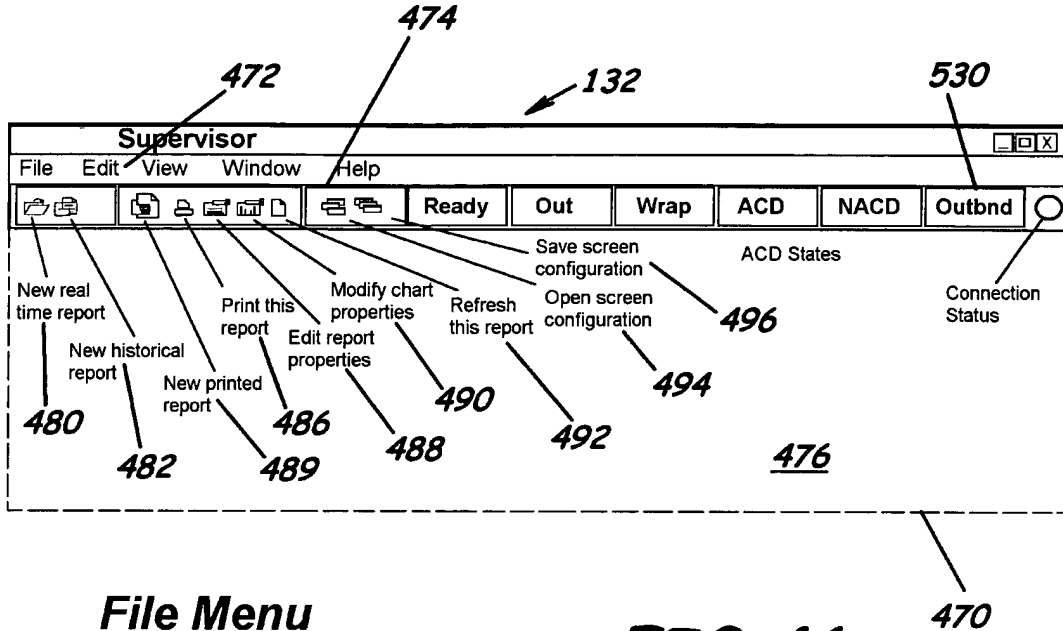
- Disabling an Agent
- Saving Agent Changes

FIG. 40.



Main Screen

All functions accessed from menus or buttons on tool bar



File Menu

- New Real Time Display
- New Historical Report
- New Printed Report
- Close Window
- Close All Windows
- Print Preview
- Exit

FIG. 41.

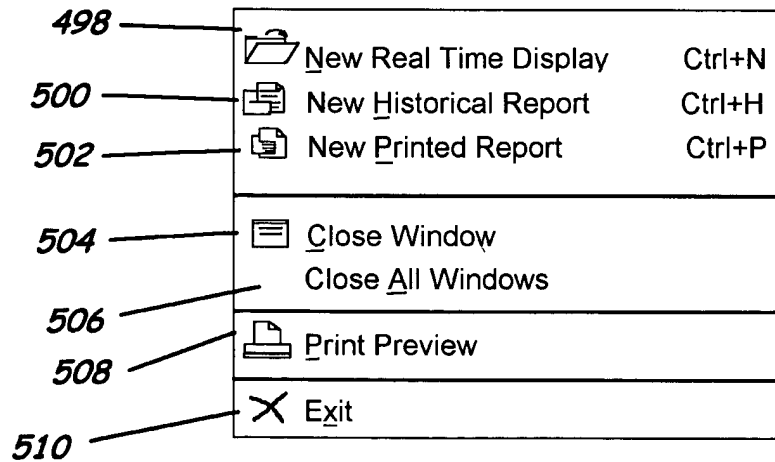


FIG. 42.

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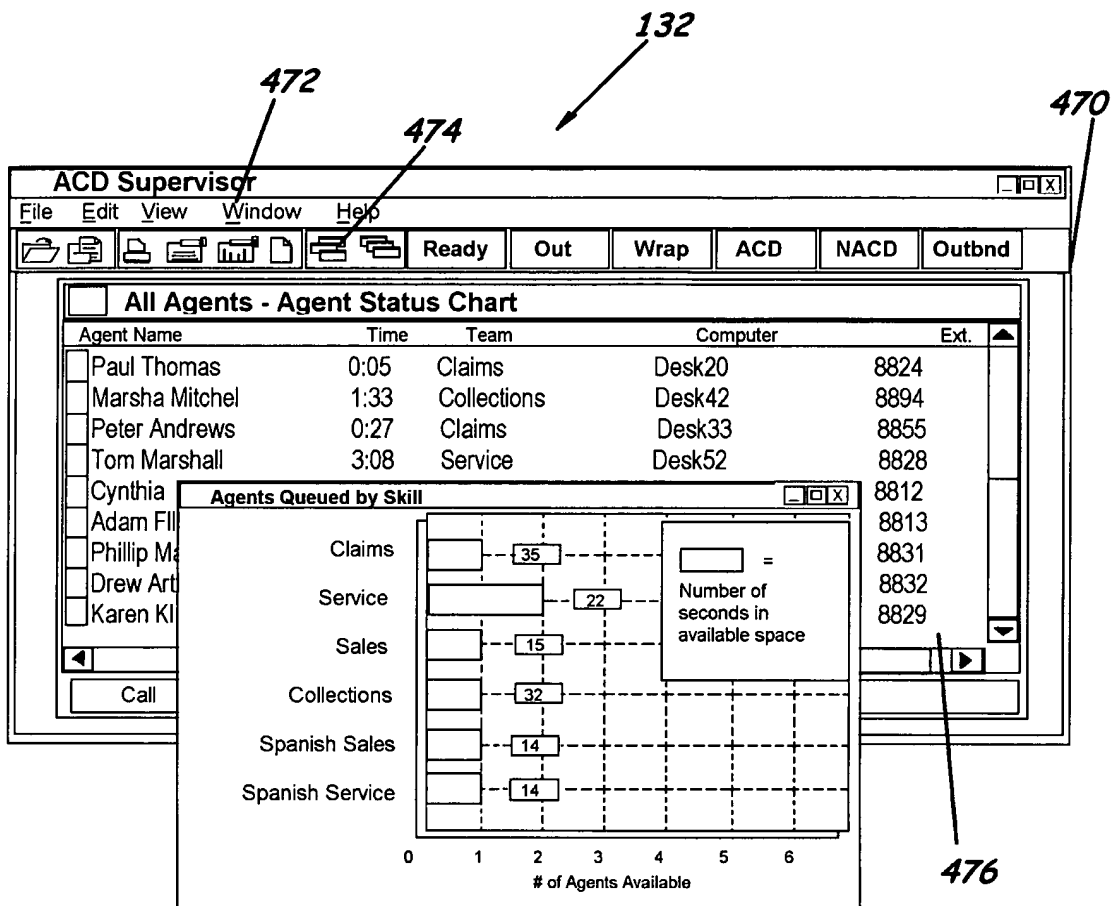


FIG. 41A.

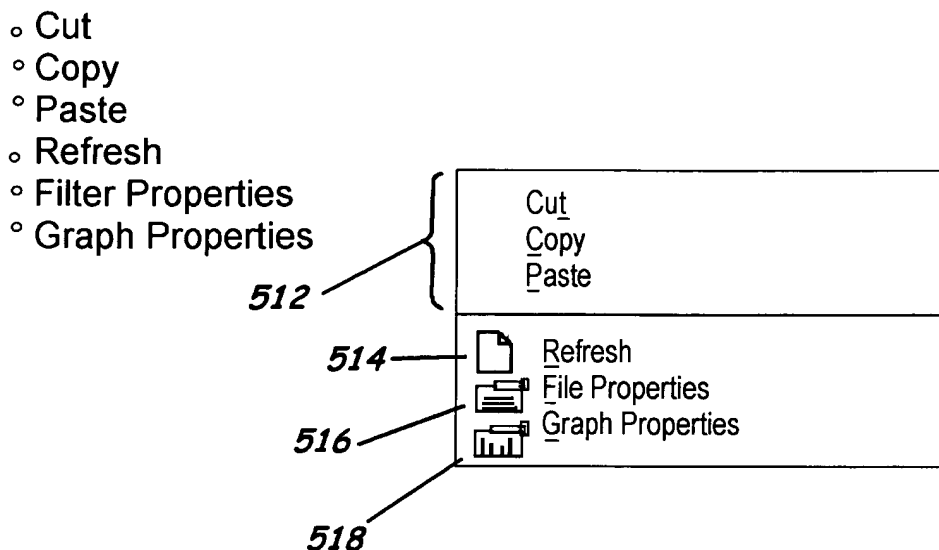


FIG. 43.

View Menu

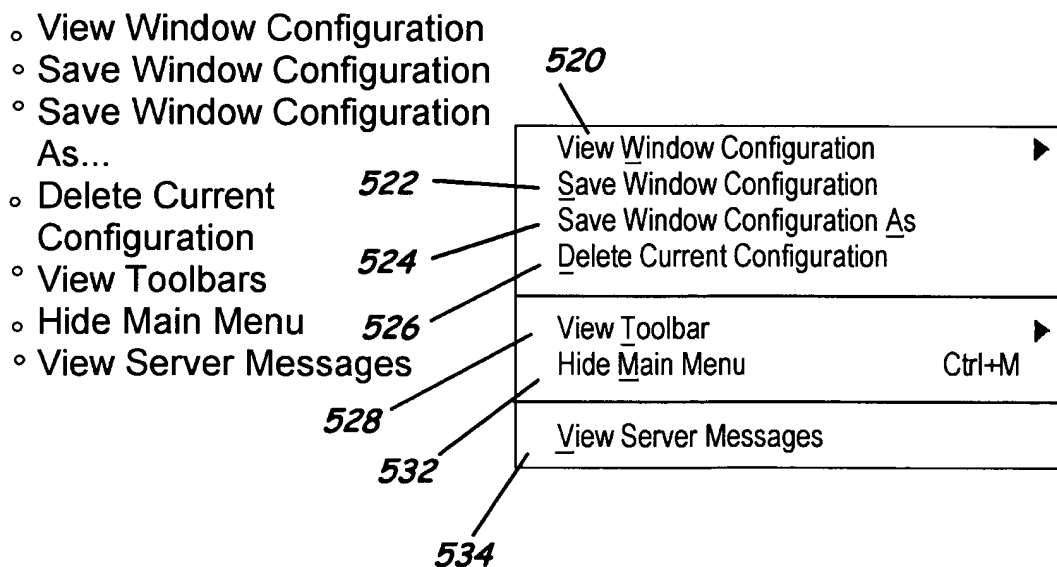


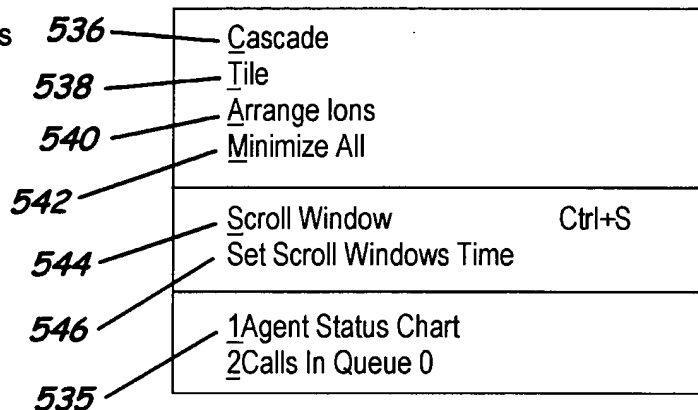
FIG. 44.



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FIG. 45.

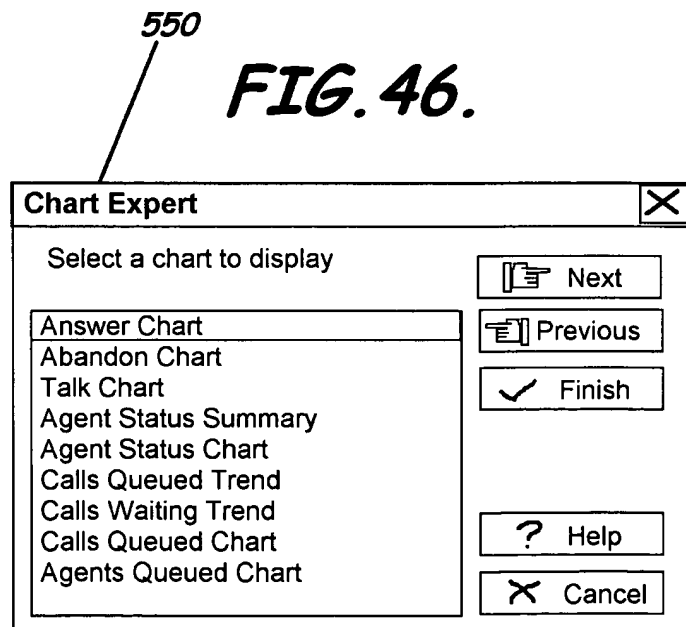
- Cascade
- Tile
- Arrange Icons
- Minimize All
- Scroll Windows
- Set Scroll Windows Time...



Real Time Reporting

- Calls Answered
- Calls Abandoned
- Talk Time
- Agent Status
- Calls In Queue
- Agents in Queue

FIG. 46.





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- Answer Chart
- Abandon Chart
- Talk Chart
- Agent Status Summary
- Agent Status Chart
- Calls Queued Trend
- Calls Queued by Skill Chart
- Agents Queued by Skill Chart
- Quick View of Calls and Agents

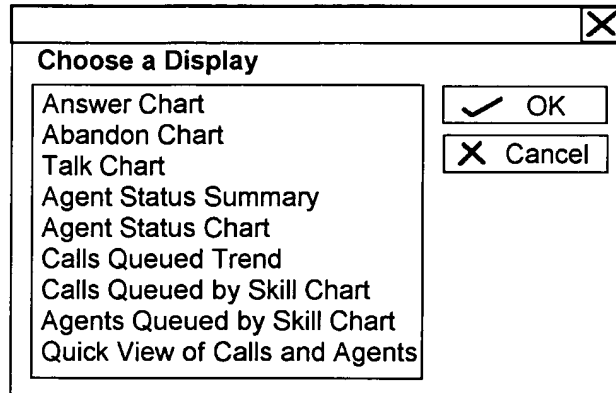


FIG. 47.

- Answer Chart

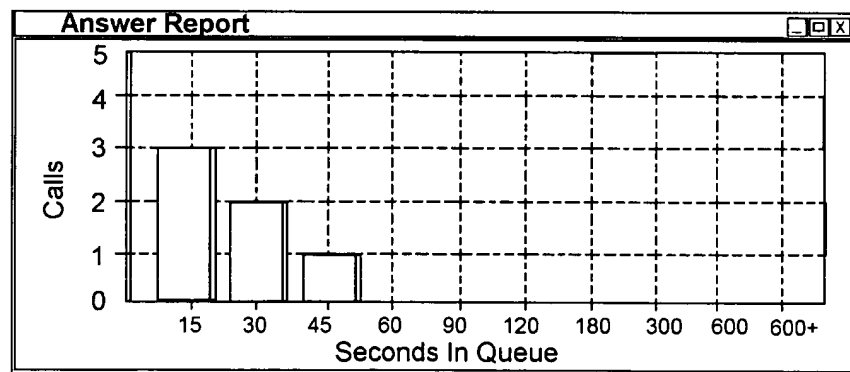


FIG. 48.



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• Talk Chart

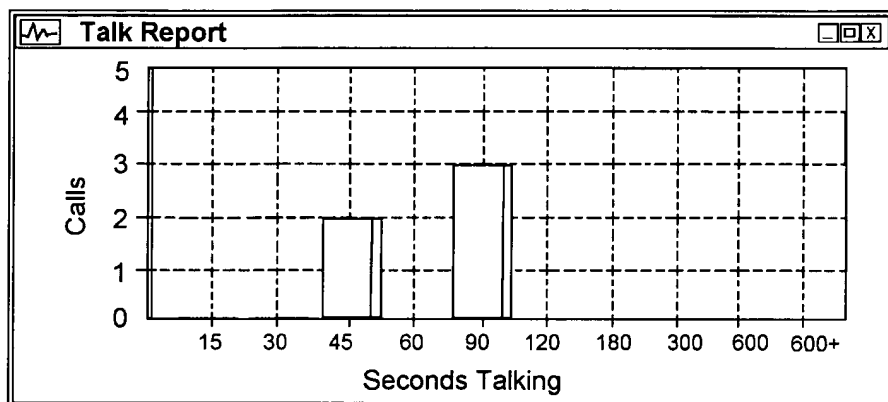


FIG. 49.

• Abandon Calls Chart

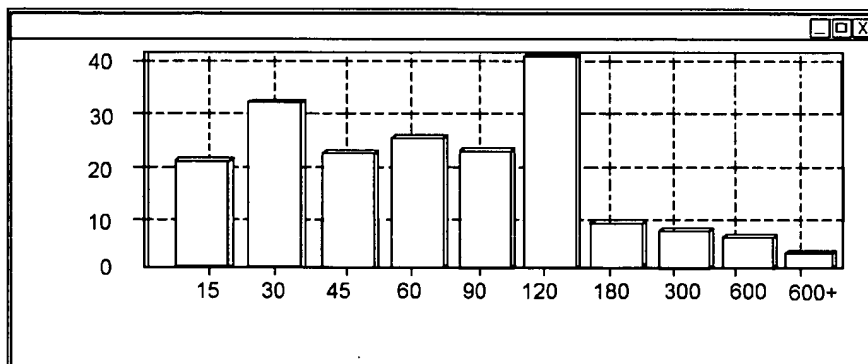


FIG. 50.



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- Agent Status Summary

| Agent Status Summary | | | |
|------------------------------|----------|------|-----------|
| Agent Name | State | Time | Team |
| <input type="checkbox"/> Eve | ACD | 0:11 | Cumulus 1 |
| <input type="checkbox"/> Pat | ACD | 1:00 | Cumulus 1 |
| <input type="checkbox"/> Dan | Outbound | 0:10 | Cumulus 1 |
| Call Monitor Record | | | |

FIG. 51.

- Agent Status Chart

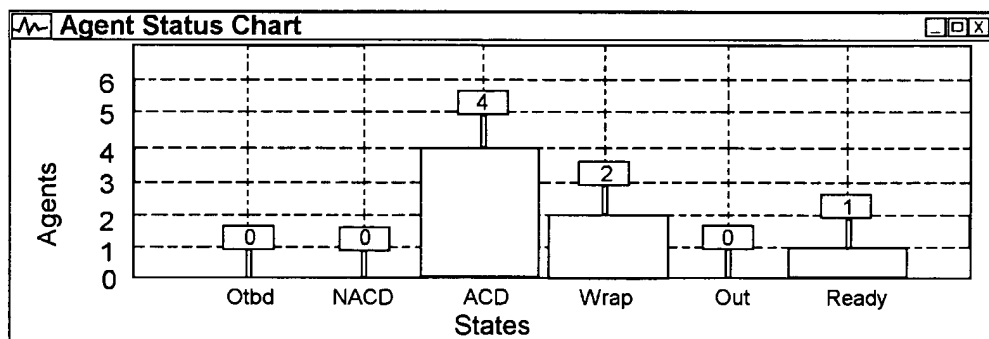


FIG. 52.



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• Calls Queued Trend

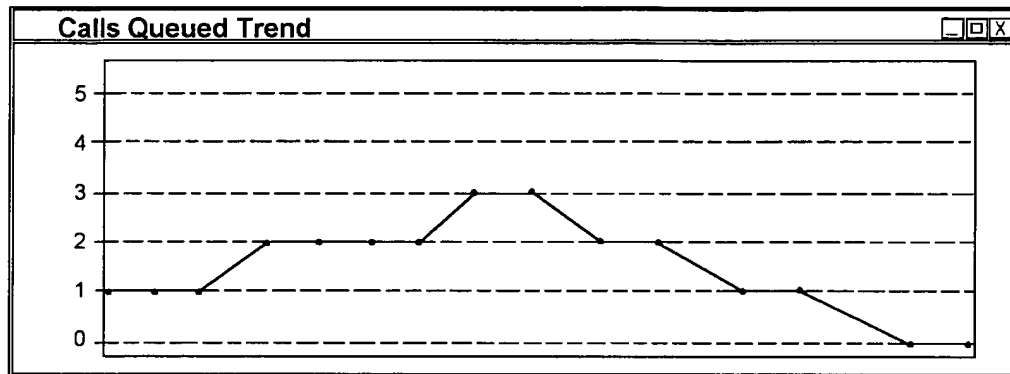


FIG. 53.

• Calls Queued by Skill Chart

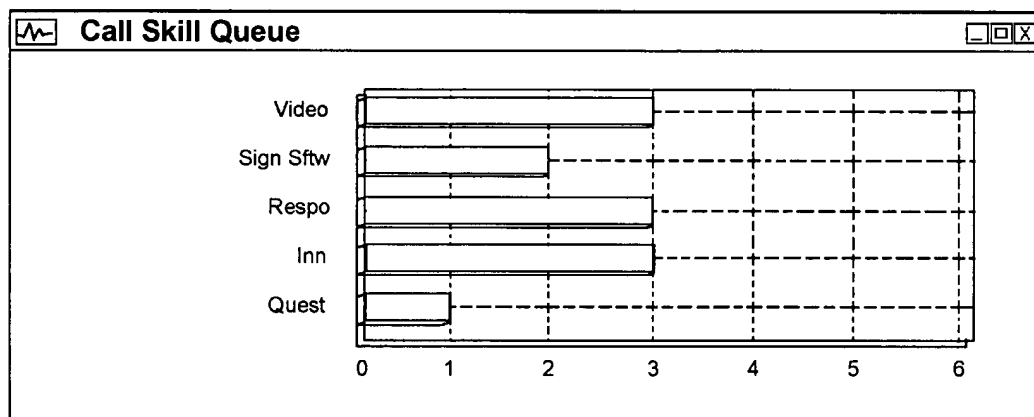


FIG. 54.



- Agents Queued by Unit Chart
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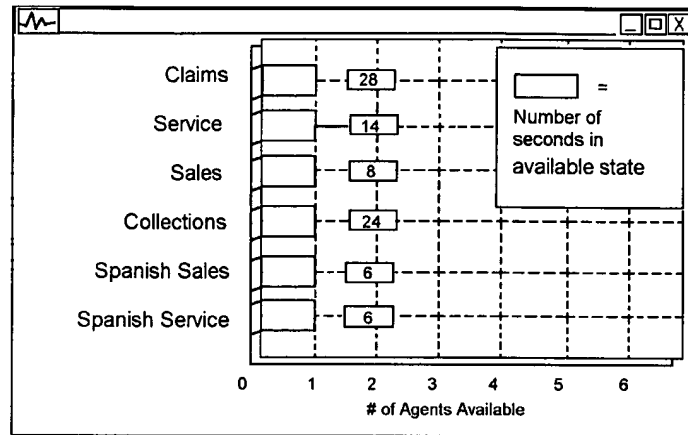


FIG. 55.

- Quick View of Calls and Agents

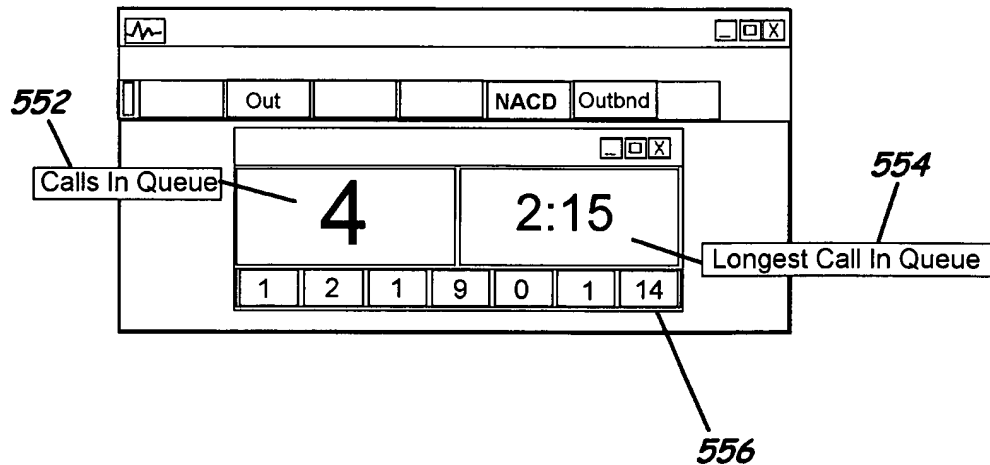


FIG. 56.



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Historical Reporting

- Agent Productivity
- Agent Productivity by Hour
- Agent Time Sheet
- Call Statistics
- Bucket History
- Calls by Hour or Fifteen Minute
- Disposition Code (Call Log)
- Calls by Agent per Hour

On-Screen Reports [X]

Choose a Report

- Agent Productivity
- Agent Productivity by Hour
- Agent Time Sheet
- Call Statistics
- Bucket History
- Calls by Hour or 15 Minute**
- Disposition Code (Call Log)
- Calls by Agent per Hour

✓ OK

X Cancel

FIG. 57.

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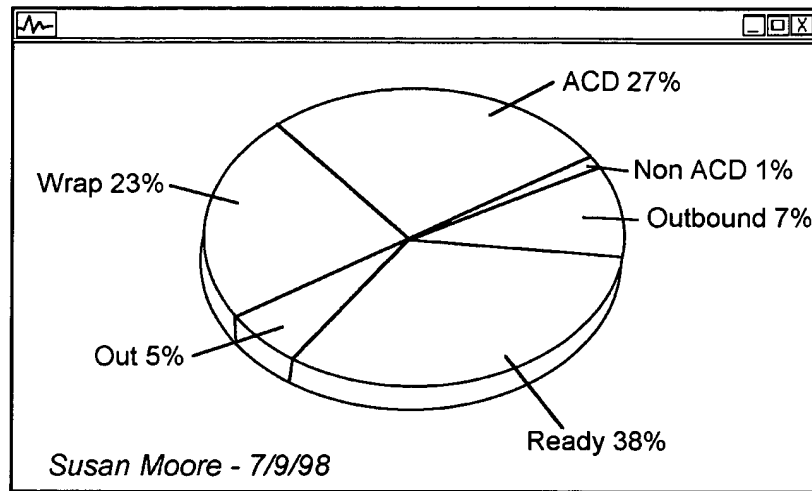
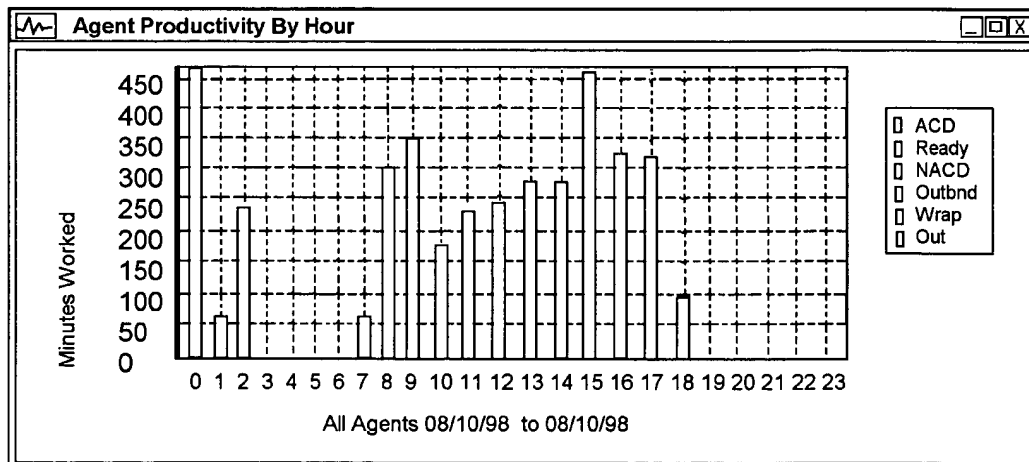


FIG. 58.

◦ Agent Productivity by

FIG. 59.





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| All Agents | | |
|---|--------------------|-------|
| First In | Last Out | Hours |
| 8/1/98 8:00:20 AM | 8/1/98 4:58:35 PM | 21.03 |
| 8/1/98 8:00:49 AM | 8/2/98 4:57:18 PM | 15.47 |
| 8/3/98 6:05:38 AM | 8/3/98 10:35:31 PM | 47.42 |
| 8/4/98 6:01:21 AM | 8/4/98 9:55:34 PM | 50.30 |
| 8/5/98 6:00:05 AM | 8/5/98 9:54:44 PM | 38.13 |
| 8/6/98 6:03:28 AM | 8/6/98 9:57:12 PM | 42.02 |
| 8/7/98 7:07:03 AM | 8/7/98 10:00:18 PM | 38.10 |
| 8/8/98 7:59:41 AM | 8/8/98 5:05:54 PM | 19.30 |
| 8/9/98 7:59:41 AM | 8/10/98 2:26:40 AM | 49.05 |
| 8/10/98 12:33:29 AM | 8/10/98 5:58:32 PM | 33.43 |
| 7/27/98 6:02:19 AM | 7/27/98 7:04:20 PM | 52.03 |
| 7/28/98 7:06:19 AM | 7/28/98 6:55:34 PM | 59.13 |
| 7/29/98 6:00:37 AM | 7/30/98 9:23:44 AM | 58.13 |
| 7/30/98 6:01:35 AM | 7/30/98 7:31:36 PM | 34.10 |
| 7/31/98 7:34:06 AM | 7/31/98 7:36:32 PM | 57.47 |
| Total Hours = 6157 Average = 41.0 per day | | |

FIG. 60.

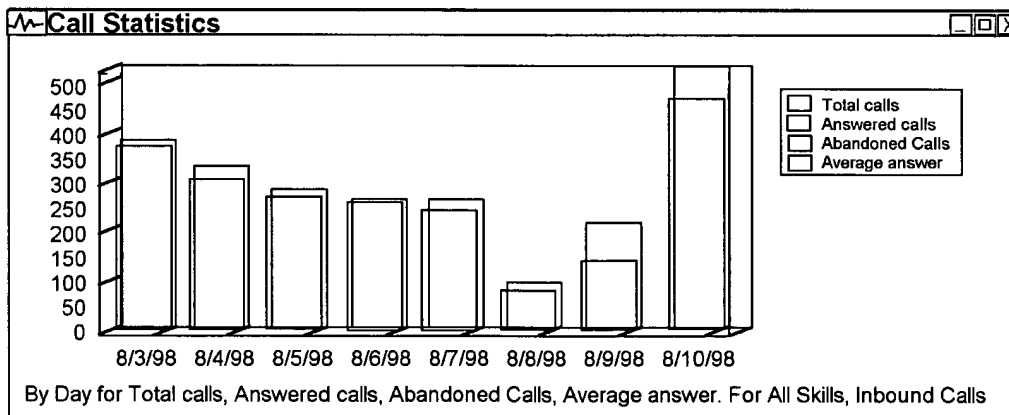


FIG. 61.



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- Bucket History

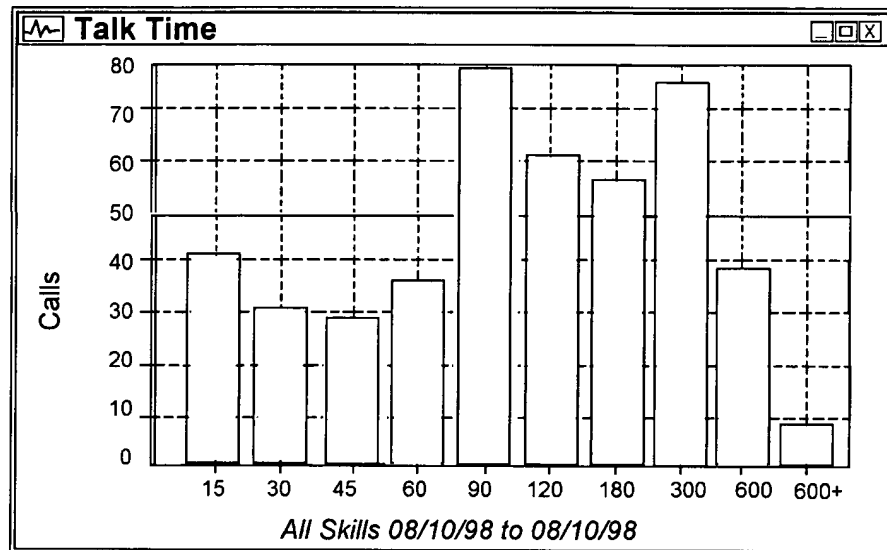


FIG. 62.

- Calls by Hour or Fifteen Minutes

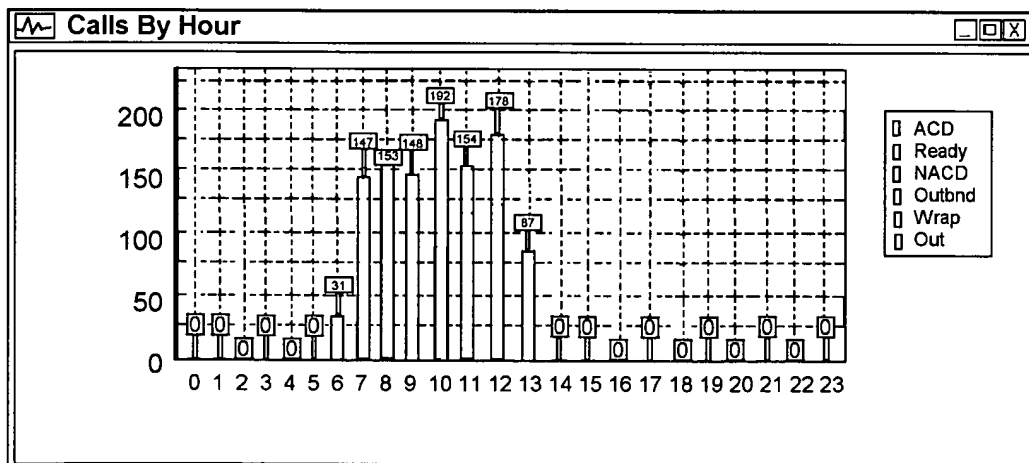


FIG. 63.

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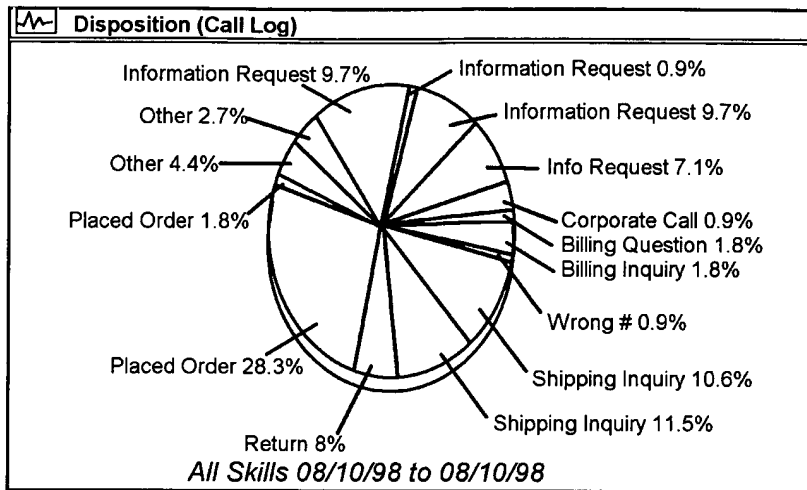


FIG. 64.

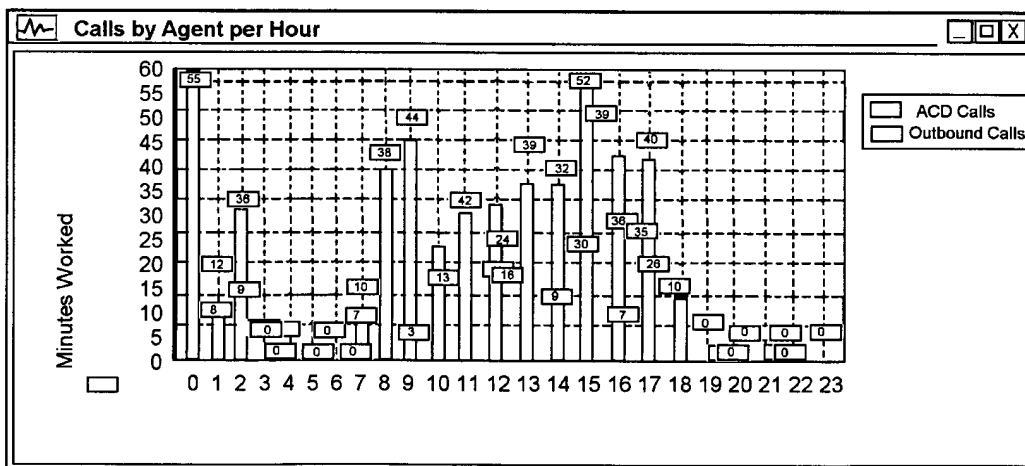


FIG. 65.

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Dial Pad Layout

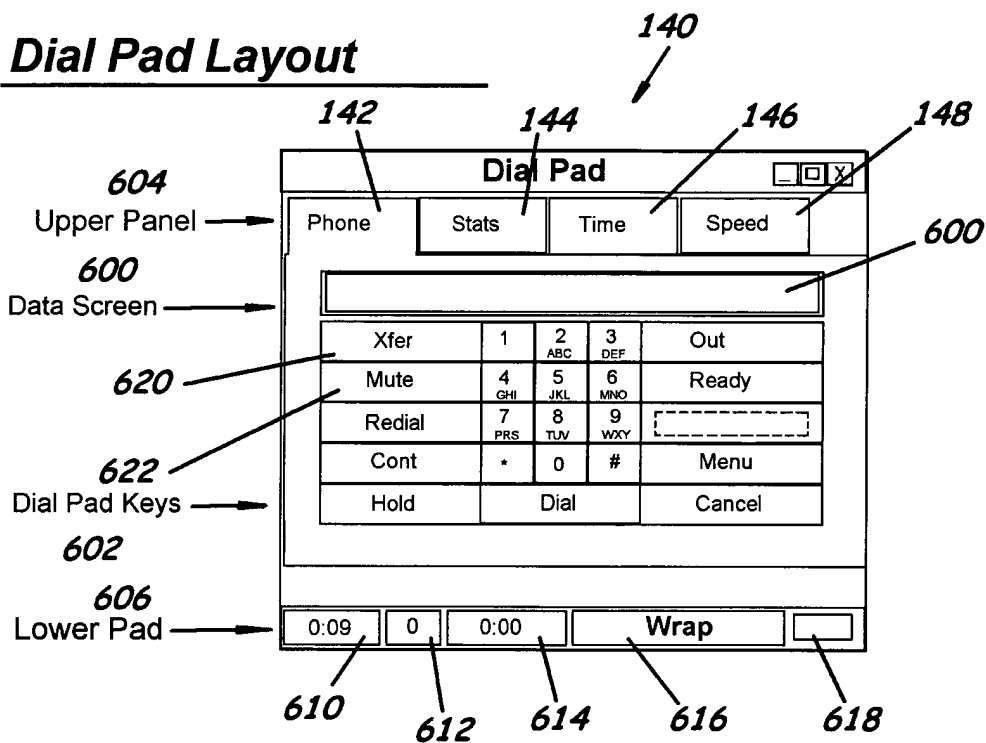


FIG. 66.



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- Menu
 - Speed Dial
 - Options

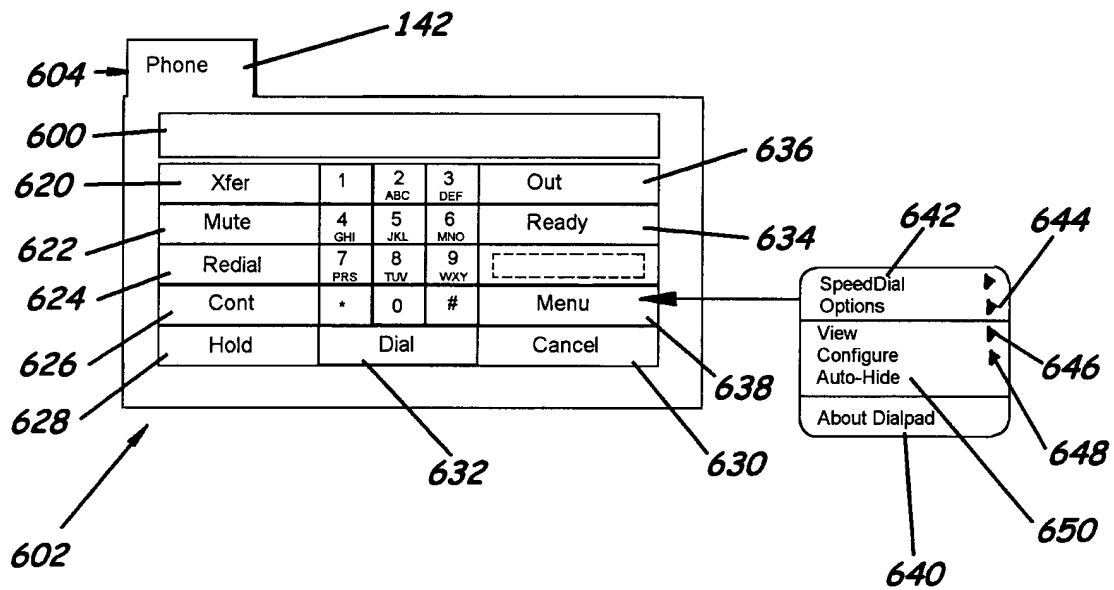


FIG. 67.



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Stats Tab

- Total Calls (ACD, NACD, Outbound)
- Average Time for Each Type

142 144 146 148

Dial Pad ☐ ☐ ☐

| Phone | Stats | Time | Speed | | | | | | | | | | | | |
|--|-------|------|-------|--|-------|------|-----|----|------|------|---|------|----------|---|------|
| <table border="1"><thead><tr><th></th><th>Calls</th><th>Avg.</th></tr></thead><tbody><tr><td>ACD</td><td>24</td><td>4.15</td></tr><tr><td>NACD</td><td>0</td><td>0.00</td></tr><tr><td>Outbound</td><td>1</td><td>6.23</td></tr></tbody></table> | | | | | Calls | Avg. | ACD | 24 | 4.15 | NACD | 0 | 0.00 | Outbound | 1 | 6.23 |
| | Calls | Avg. | | | | | | | | | | | | | |
| ACD | 24 | 4.15 | | | | | | | | | | | | | |
| NACD | 0 | 0.00 | | | | | | | | | | | | | |
| Outbound | 1 | 6.23 | | | | | | | | | | | | | |
| 2:02 0 0:00 Out <input type="checkbox"/> | | | | | | | | | | | | | | | |

FIG. 68.

Speed Tab

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Speed

| | |
|-------|----------------------|
| A | Rob Office |
| B | David's Mobile Phone |
| C | David's Desk |
| D | Home |
| E | |
| F | |
| G | |
| H | |
| << >> | |

FIG. 69.

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Time Tab

Pie chart of time spent in:

- ACD
- NACD
- Outbound
- Ready
- Wrap
- Out

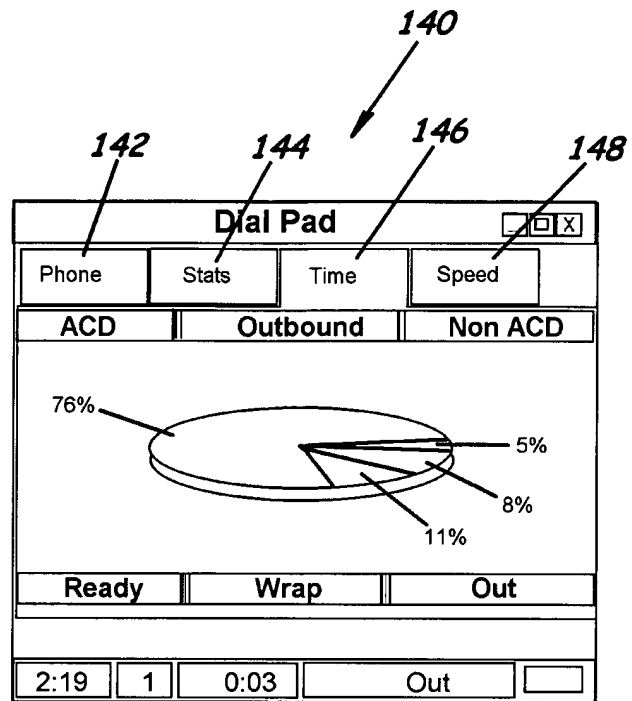
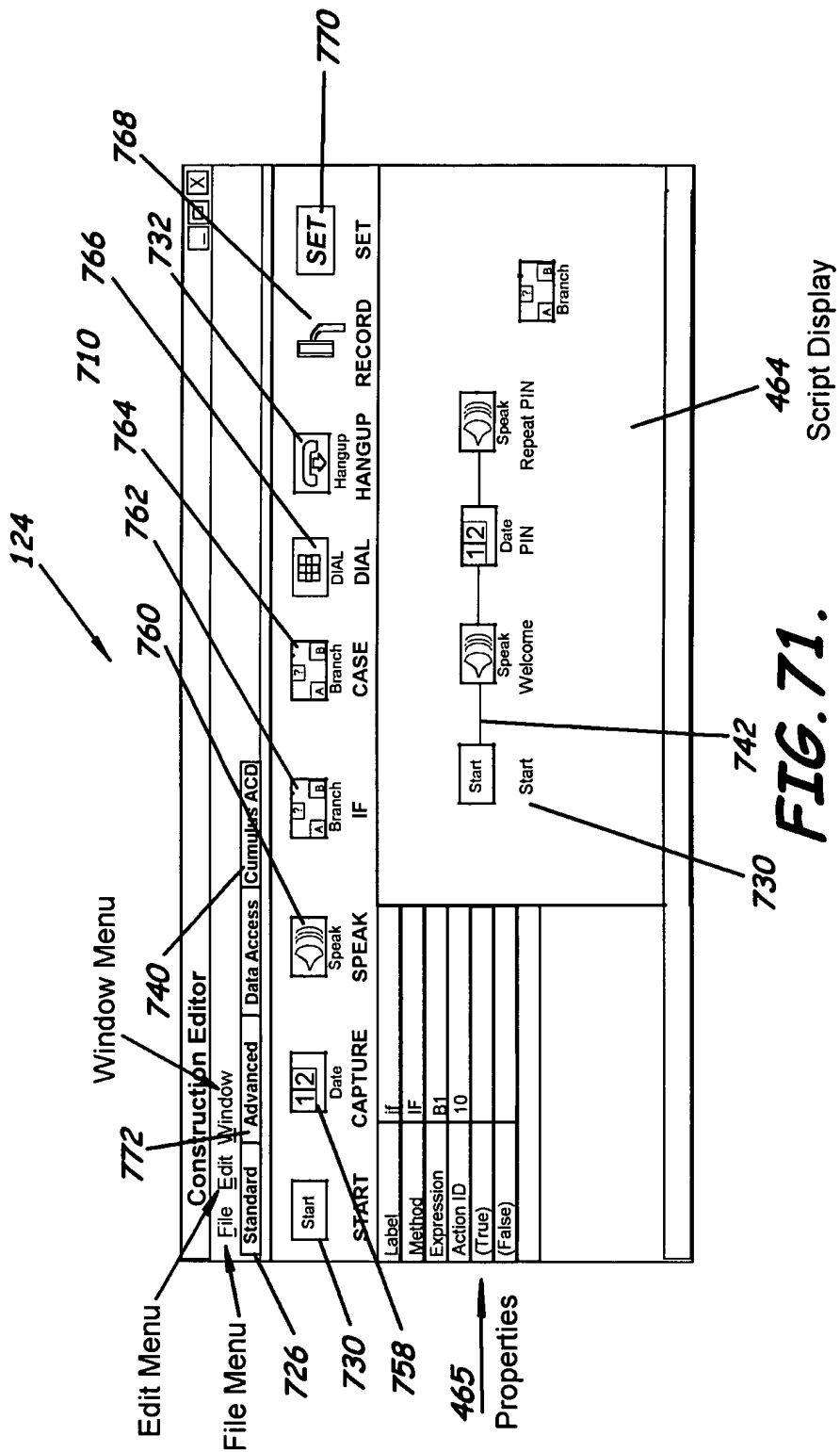


FIG. 70.





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Case

Select Condition for Branch

Default

Term Digit

Max Digits

Time Out

Time Out Inter Digit

Failure

True

False

Variable Value

enter value here

OK

Cancel

FIG. 72.